

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of operating an inkjet printing mechanism, the method comprising:

passing media through a printzone, said printzone including a support apparatus supporting said media thereat;

during said passing, applying in a printzone print imaging by application of ink from an ink dispensing element and onto a first surface of said media; and

directing an airflow at said first surface prior to the first surface being contacted by a structure downstream of the printzone, said airflow including a first directional component away from said printzone so as to not intersect the printzone and a second directional component into said first surface, said second directional component urging at least a portion of said media against said support apparatus in said printzone.

2. (Original) A method according to claim 1 wherein said airflow is directed from an elongate vent.

3. (Original) A method according to claim 2 wherein a length dimension of said elongate vent is generally transverse to a media feed direction of said media passing through said printzone.

4. (Original) A method according to claim 2 wherein said length dimension of said elongate vent is substantially coincident with a width of said printzone.

5. (Original) A method according to claim 1 wherein said airflow carries heat energy taken from a heat source.

6. (Original) A method according to claim 5 wherein said heat source includes resistive elements carrying electrical current therethrough and having resistance thereto sufficient to produce elevated temperature in said airflow as said heat energy carried by said airflow moving therpast.

7. (Original) A method according to claim 6 wherein said resistive elements include electronic control circuit components serving also to support operation of an inkjet printer.

8. (Original) A method according to claim 1 wherein said airflow is provided from an elongate vent having a length dimension less than a width of said printzone.

9. (Currently Amended) A method according to claim 1 wherein said airflow carries heat energy taken from a heat source performing a function other than heating air and otherwise producing waste heat energy.

10. (Original) A method according to claim 9 wherein said waste heat energy originates from electronic control circuit components.

11. (Previously Presented) A method according to claim 9 wherein said waste heat energy originates from motor components.

12. (Withdrawn) A method according to claim 1 wherein directing said airflow includes directing said airflow from a vent located on a carriage of an inkjet printer, and said applying comprises carrying said dispensing element.

13. (Withdrawn) A method according to claim 12 wherein said carrying comprises reciprocating said carriage laterally relative to a feed direction of said media passing through said printzone.

14. (Original) A method according to claim 1 wherein said second directional component is of sufficient magnitude to maintain said media against said support surface in said printzone.

15. (Original) A method according to claim 14 wherein said second directional component is directed away from said printzone.

16. (Original) A method according to claim 1 wherein said first directional component is substantially uniform across said media in a direction generally transverse to a feed direction of said media passing through said printzone.

17. (Original) A method according to claim 16 wherein said second directional component has greater magnitude at a laterally-outermost portion of said media relative to a laterally-central portion of said media.

18. (Original) A method according to claim 1 wherein said first directional component varies across said media in a direction generally transverse to a direction of said media passing through said printzone.

19. (Currently Amended) An ink assist air knife comprising:

a heat source, said heat source including an inlet and an outlet, said heat source introducing heat energy into an airflow moving therethrough from said inlet to said outlet;

an air transport fluidly coupled to said heat source and moving said airflow therethrough; and

a conduit fluidly coupled to said air transport whereby said airflow as provided by said air transport passes through said conduit and exits a vent of said ink assist air knife as a heated airflow, with said vent being located relative to an inkjet printing mechanism having a printzone, said airflow as provided at said vent including directional components away from said printzone so as to not intersect the printzone and sufficiently into media for stabilization thereof within said printzone, said media having print imaging thereon as applied by said inkjet printing mechanism within said printzone, wherein the vent is configured such that airflow provided at the vent impinges the face prior the face being contacted by a structure downstream of the printzone.

20. (Original) An ink assist air knife according to claim 19 wherein said heat source comprises electrically conductive elements offering resistance to electrical current passing therethrough.

21. (Original) An ink assist air knife according to claim 20 wherein said electrically conductive elements include control components serving also to support operation of said inkjet printing mechanism.

22. (Currently Amended) An inkjet printing mechanism comprising:
a printing system, including an ink dispensing element selectively ejecting ink droplets to produce imaging in a printzone thereof, said printing system further comprising a support apparatus partially bounding said printzone to support media therein relative to said ink dispensing element; and

an ink drying system including a heat source, an air transport, and an outlet vent, said air transport providing an airflow through said heat source, at said vent, and against a face of said media with directional components at said outlet vent including a first component directed away from said printzone so as to not intersect the printzone and a second component directed sufficiently into said media for stabilization thereof within said printzone, wherein the vent is configured such that airflow provided at the vent impinges the face prior the face being contacted by a structure downstream of the printzone.

23. (Original) An inkjet printing mechanism according to claim 22 wherein said airflow promotes drying of said print imaging and maintains said media within a selected range of distance relative to said ink dispensing element by maintaining said media against said support apparatus.

24. (Withdrawn) An inkjet printing mechanism according to claim 22 wherein said outlet vent comprises an elongate vent constricting said airflow to increase velocity thereof as said airflow is directed against said imaging.

25. (Withdrawn) An inkjet printing mechanism according to claim 24 wherein said outlet vent is stationary.

26. (Withdrawn) An inkjet printing mechanism according to claim 24 wherein said outlet vent is non-stationary.

27. (Withdrawn) An inkjet printing mechanism according to claim 22 further comprising a reciprocating carriage which transports said ink dispensing element across the printzone, and wherein said outlet vent is supported by said carriage.

28. (Withdrawn) An inkjet printing mechanism according to claim 27 wherein said outlet vent couples to said heat source, and further including a flexible conduit facilitating reciprocation of said carriage.

29. (Original) An inkjet printing mechanism according to claim 22 wherein said heat source comprises electric components offering resistance to electrical current passing therethrough.

30. (Original) An inkjet printing mechanism according to claim 29 wherein said electrically conductive components include electronic control components directing operation of said inkjet printing mechanism.

31.. (Currently Amended) An ink assist air knife comprising:
heat energy supplying means for generating heat energy;
airflow producing means for producing an airflow, including means for collecting heat energy from said heat energy supplying means for incorporation into said airflow; and

airflow directing means for applying said airflow to print imaging on a face of media prior to the face being contacted by a structure downstream of the printzone and with directional components of substantial magnitude into said print imaging so as to be sufficient to stabilize media within a printzone whereat said print imaging is produced and bearing said print imaging and with directional components away from said printzone so as to not intersect the printzone whereat said print imaging is produced.

32. (Original) An ink assist air knife according to claim 31 wherein said heat energy supplying means comprises electric component means for offering resistance to electrical current passing therethrough.

33. (Original) An ink assist air knife according to claim 32 wherein said resistive elements include electronic control component means for supporting operation of an inkjet printing mechanism means for producing said print imaging.

34. (Original) An ink assist air knife according to claim 31 wherein said airflow directing means include a vent located in an inkjet printing mechanism having a printzone, said airflow being provided at said vent, said printzone defining a location at which said print imaging is formed.

35. (Currently Amended) An inkjet printing mechanism comprising:
print imaging applying means for producing print imaging on a face of media in a printzone; and

airflow directing means for directing said airflow into said print imaging prior to the face being contacted by a structure downstream of the printzone and including airflow directional components away from said printzone so as to not intersect the printzone and sufficiently into said media to stabilize said media in said printzone.

36. (Original) An inkjet printing mechanism according to claim 35 wherein said inkjet printer further comprises means for incorporating heat energy into said airflow.

37. (Original) An inkjet printing mechanism according to claim 35 wherein said airflow directing means includes an air knife vent.

38. (Original) An inkjet printing mechanism according to claim 37 wherein said air knife vent is stationary.

39. (Withdrawn) An inkjet printing mechanism according to claim 37 wherein said air knife vent is non-stationary.

40. (Currently Amended) An inkjet printing mechanism, comprising:
a print imaging device producing print imaging on a face of media in a
printzone; and
an airflow directing device applying an airflow to the face of said media
prior to the face being contacted by a structure downstream of the printzone and
including first directional components away from said printzone so as to not intersect
the printzone and second directional components sufficiently toward said media to
bear said media against a support apparatus of said printzone and thereby stabilize
said media within said printzone.
41. (Original) An inkjet printing mechanism according to claim 40 wherein
said airflow directing device is an air knife having an elongate slot located proximate
said media and proximate said printzone whereby said second directional
components maintain said media against said support surface when in said
printzone.
42. (Previously Presented) A method according to claim 1 wherein the
airflow is directed from a vent having an opening between the ink dispensing
element and the first surface of the media.
43. (Previously Presented) A method according to claim 1 wherein the
media is passed through the printzone in a first direction and wherein the first
directional component is in the first direction.
44. (Previously Presented) A method according to claim 1 wherein the
airflow is directed through a conduit extending towards the first surface and
terminating at a vent proximate to and angularly facing the first surface.
45. (Previously Presented) A method of claim 44 wherein the ink
dispensing element is provided by a printhead at a first end of a cartridge having a
second opposite end, wherein the conduit extends from the first end to the second
end.

46. (Previously Presented) A method according to claim 1 including varying a magnitude of the airflow across the first surface.

47. (Withdrawn and Currently Amended) A method according to claim 46 wherein the media is passed through the printzone in a first longitudinal direction, wherein a media ~~of has~~ a central region ~~of and~~ a lateral edge and wherein the first directional component of the airflow is directed at the first surface ~~and with~~ a first magnitude at the central portion ~~and with~~ a second greater magnitude at the lateral edge.

48. (Withdrawn) A method according to claim 46 wherein the media is passed through the printzone in a longitudinal direction, wherein the media has a central region and lateral edges and wherein the second directional component of the airflow has a first magnitude at the lateral edge and a second greater magnitude at the central region.

49. (Currently Amended) A printing mechanism comprising:
a printhead configured to selectively eject fluid printing material onto a print surface in a printzone;

a pressurized air source having an opening proximate the print surface and angularly facing away from printzone so as to impinge the print surface prior to the print surface being contacted by a structure downstream of the printzone and so as to direct pressurized air against the print surface to stabilize the print surface within the printzone and such that pressurized air does not intersect the printzone.

50. (Previously Presented) The print mechanism of claim 49 wherein the airflow is directed from a vent having an opening between the printhead and the print surface.

51. (Previously Presented) The print mechanism of claim 49 wherein the print surface is passed through the printzone in a first direction and wherein the opening angularly faces in the first direction.

52. (Previously Presented) The print mechanism of claim 49 wherein pressurized air is directed through a conduit extending towards the print surface and terminating at the opening.

53. (Previously Presented) The print mechanism of claim 52 including a cartridge providing the printhead at a first end having a second opposite end, wherein the conduit extends from the first end to the second end.

54. (Previously Presented) The print mechanism of claim 49 including varying a magnitude of the airflow across the print surface.

55. (Withdrawn) The print mechanism of claim 54 wherein the print surface is passed through the printzone in a first longitudinal direction, wherein the print surface has a central region and a lateral edge and wherein airflow from the pressurized air source has a directional component directed at the first surface with a first magnitude at the central portion and a second greater magnitude at the lateral edge.

56. (Withdrawn) The print mechanism of claim 54 wherein the print surface passes through the printzone in a longitudinal direction, wherein the print surface has a central region and lateral edges and wherein airflow from the pressurized air source has a directional component away from the printzone with a first magnitude at the lateral edge and a second greater magnitude at the central region.

57. (Previously Presented) A printing mechanism comprising:
a printhead configured to deposit fluid printing material upon a printing surface;
a controller configured to generate control signals directing the operation of the printing mechanism;
a pressurized air source creating an airflow configured such that the airflow is heated by heat emitted from the controller, wherein the pressurized air source is configured to direct the heated airflow against the print surface.

58. (Cancelled)

59. (Currently Amended) A printing mechanism comprising:
a printhead configured to deposit fluid printing material on a printing
surface in a printzone;
a support apparatus supporting the printing surface; and
a pressurized air source configured to direct an airflow at the print
surface prior to the print surface being contacted by a structure downstream of the
printzone such that the print surface is stabilized against the support apparatus in
the printzone and such that the airflow does not create air turbulence at the print
surface in the printzone.

60. (Cancelled)

61. (Previously Presented) The method of claim 1, wherein the airflow is
directed at the first surface and at the support apparatus underlying the first surface.

62. (Previously Presented) The method of claim 18, wherein the airflow is
directed from a vent having an opening between the ink dispensing element and the
first surface of the media.

63. (New) The method of claim 1, wherein the media is passed through
the printzone relative to the support which is stationary.

64. (New) The method of claim 5, wherein the airflow is directed at the
first surface after the first surface has passed through the printzone and wherein the
heat energy carried by the airflow preheats the media prior to the media entering the
printzone.

65. (New) The method of claim 64, wherein the airflow carrying the heat
energy preheats the media while the media is in a feed tray.

66. (New) A method of operating an inkjet printing mechanism, the
method comprising:

passing media through a printzone, said printzone including a support apparatus supporting said media thereat;

during said passing, applying in a printzone print imaging by application of ink from an ink dispensing element and onto a first surface of said media; and

directing an airflow at said first surface, said airflow including a first directional component away from said printzone so as to not intersect the printzone and a second directional component into said first surface, said second directional component urging at least a portion of said media against said support apparatus in said printzone, wherein said first directional component varies across said media in a direction generally transverse to a direction of said media passing through said printzone.